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新型

全3頁

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[54]名稱：三自由度搖桿機構

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[57]申請專利範圍：

一種具有三個旋轉自由度之搖桿機構，可控制X方向與Y方向之平移或旋轉及Z方向之旋轉等三自由度；其中搖桿手把與基座間是以一球窩接頭連接，並利用安裝於基座上之三顆直線式譯碼器之鋼線長度變化量，經由電腦介面轉換為搖桿之方位變化者。

圖式簡單說明：

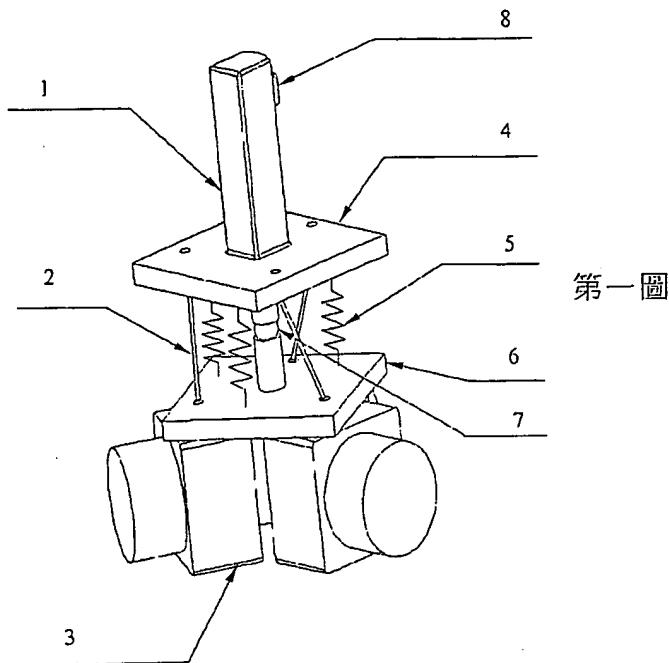
第一圖：本案創作之基本構件。

第二圖：搖桿之硬體接線圖。

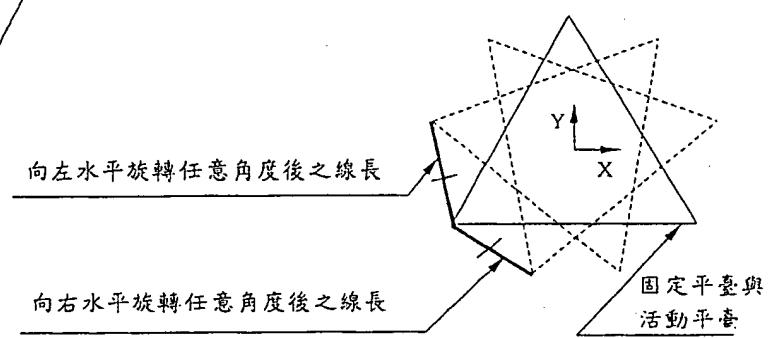
第三圖：以活動平臺4繞Z軸旋轉
5. 0°為歸零位置。

第四圖：以活動平臺4繞Z軸旋轉
30°為歸零位置。

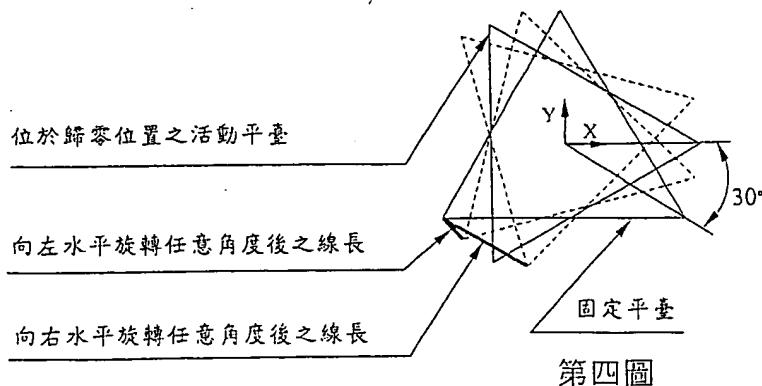
(2)



第一圖

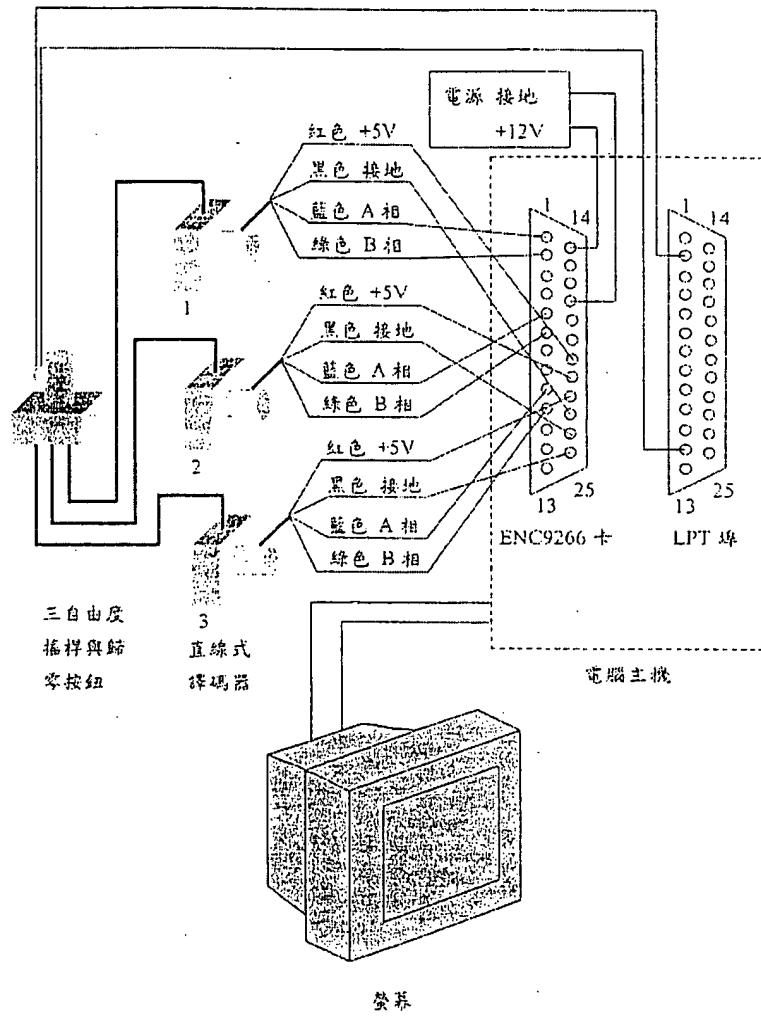


第三圖



第四圖

(3)



第二圖

Citation 3

The English translation of Taiwanese Utility Model Patent under Application No. 89209235 with Publication No. 481284

Claims:

A joystick mechanism with three rotatory degree of freedom can control three degree of freedom such as the parallel movement or rotation of X direction and Y direction and rotation of Z direction, wherein a ball-and-socket joint is jointed between the joystick handle and the base, and employs the change of steel cable length of three linear decoder arranged on the base to transform into the change of the joystick direction through the computer interface.

Brief description of the drawings:

Figure 1 shows the fundamental element of the present invention.

Figure 2 shows hardware wiring chart of joystick

Figure 3: It is shown with movable platform 4 rotating 0 degree about axis Z as zero position.

Figure 4: It is shown with movable platform 4 rotating 30 degrees about axis Z as zero position.

List of the Major Symbols and Elements

| | |
|---|-----------------------|
| 1 | joystick handle |
| 2 | steel wire |
| 3 | linear decoder |
| 4 | movable platform |
| 5 | spring |
| 6 | fixed platform |
| 7 | ball-and-socket joint |
| 8 | zero button |

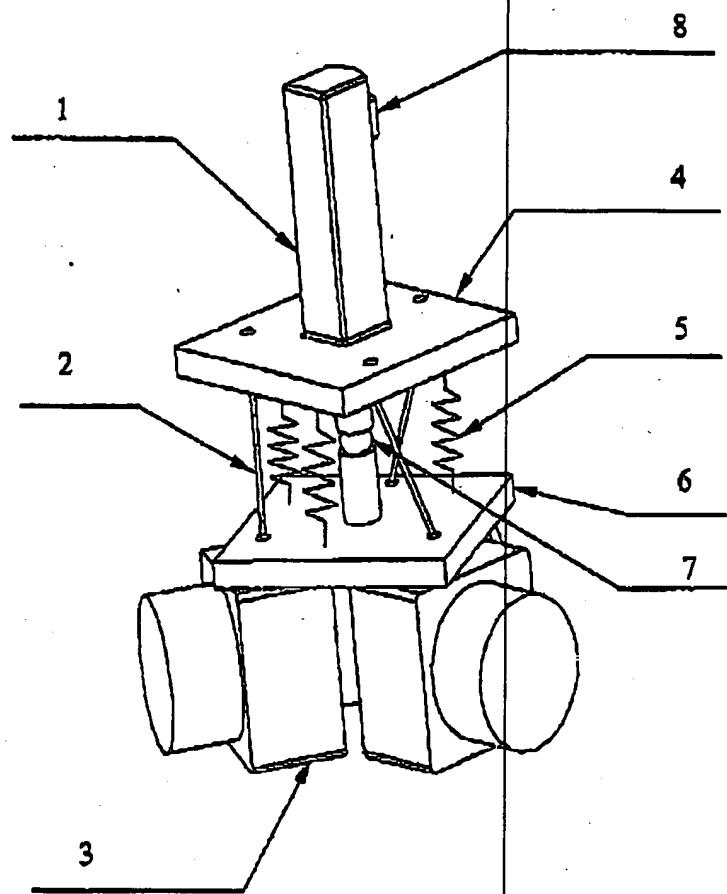


FIG. 1

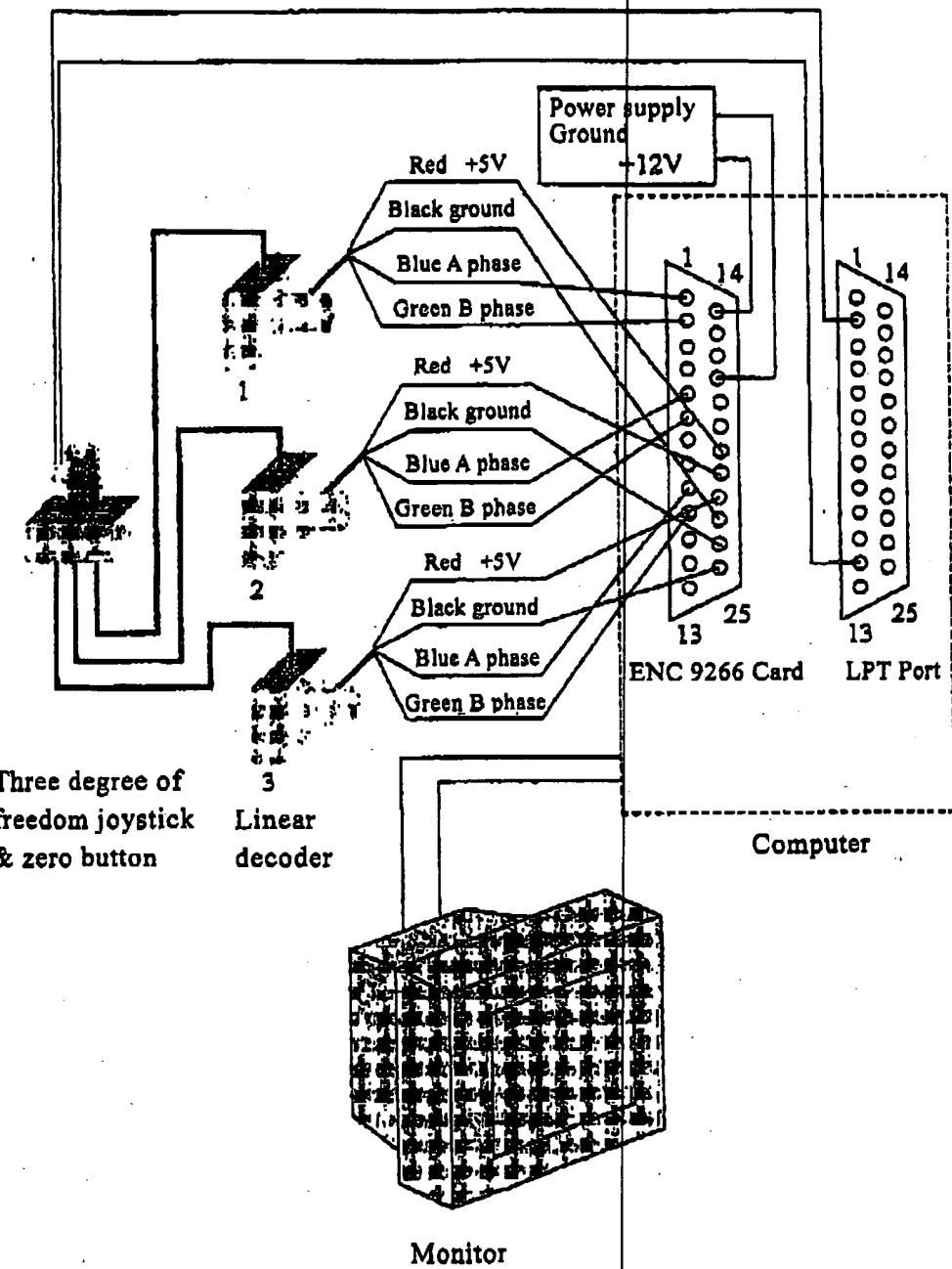


FIG. 2

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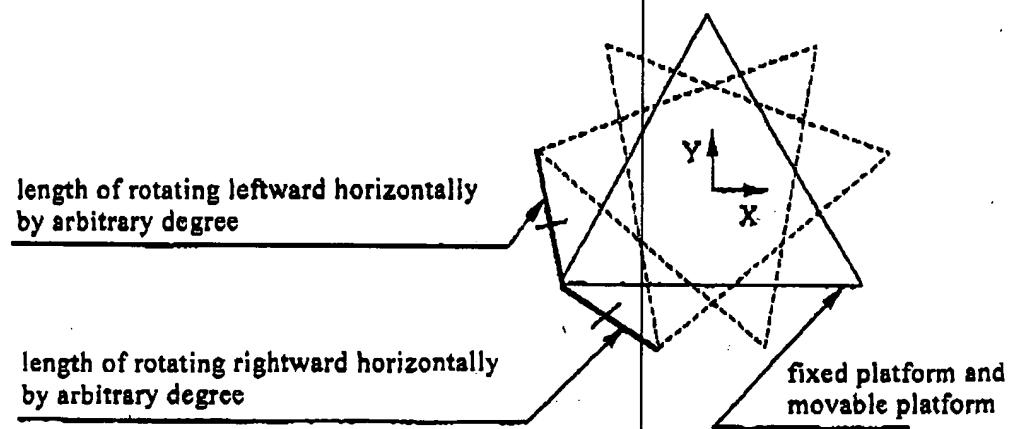


FIG. 3

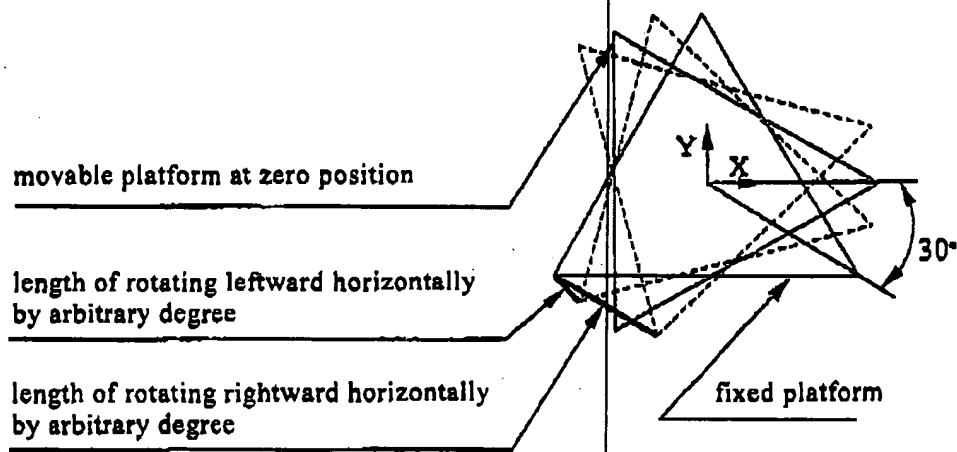


FIG. 4